AMENDMENTS TO THE CLAIMS

1   1. (Cancelled)

1   2. (Cancelled)

1   3. (Currently Amended)   ~~The method as recited in Claim 59,~~ A method of processing data,
2   the method comprising the machine-implemented steps of:
3   storing a first relationship between a first concept and a second concept, wherein:
4   the first concept and the second concept are each one of a plurality of atomic
5   concepts;
6   the first concept and the second concept are in a first category of concepts; and
7   the first relationship is part of a first concept graph corresponding to the first
8   category of concepts; and
9   storing a second relationship between the first concept and a third concept, wherein:
10   the third concept is one of the plurality of atomic concepts;
11   the first concept and the third concept are in a second category of concepts; and
12   the second relationship is part of a second concept graph corresponding to the
13   second category of concepts;
14   wherein the first concept, the second concept, and third concept are each different
15   concepts; the first category is distinct from the second category; and the
16   first concept graph is distinct from the second concept graph;
17   wherein the method further comprises:
18   receiving a request for information related to the second concept;
19   sending a response to the request, wherein the response comprises information related to
20   the third concept and the response is generated based on the first relationship, the
21   second relationship, and the third concept;
22   wherein:

23   the first category is one of a products category, a services category, an activities category

24   and a document category; and

25   the second category is a different one of the products category, the services category, the

26   activities category and the document category.

1   4. (Cancelled)

1   5. (Currently Amended)   The method as recited in Claim ~~58~~ 59, further comprising the step

2   of processing enterprise data based on the first concept and the second relationship.

1   6. (Currently Amended)   The method as recited in Claim ~~58~~ 59, wherein the second

2   relationship is of a second relationship type, and wherein the second relationship type

3   relates three or more concepts of the plurality of atomic concepts.

1   7. (Currently Amended)   The method as recited in Claim ~~58~~ 59, wherein the second

2   relationship is of a second relationship type, and wherein the second relationship type

3   relates at least one concept of the plurality of atomic concepts associated with the first

4   category to at least another concept of the plurality of atomic concepts associated with the

5   second category.

1   8. (Currently Amended)   The method as recited in Claim ~~58~~ 59, wherein concepts in the first

2   category are represented as nodes connected by relationships of a first relationship type

3   along one or more branches of a first type hierarchy to a first root node representing a

4   first root concept for the first category.

1   9. (Original)   The method as recited in Claim 8, wherein the first root node has a "child of"

2   relationship to an enterprise data root node representing an enterprise data root concept.

1   10. (Previously presented)   The method as recited in Claim 9, wherein a second root node

2   corresponding to a second root concept for the second category has a "child of"

3   relationship to the enterprise data root node.

1   11. (Currently Amended)   The method as recited in Claim 58 59, wherein an association

2   among the first concept and the first relationship and the second relationship is provided

3   by a relational database.

1   12. (Currently Amended)   The method as recited in Claim 58 59, wherein the first concept is

2   stored as a record in a first data store table, said record including a concept name field for

3   storing a name of the first concept.

1   13. (Original) The method as recited in Claim 12, wherein every record in the first data store

2   table stores a name of a concept of the plurality of atomic concepts associated with the

3   first category.

1   14. (Currently Amended)   The method as recited in Claim 58 59, wherein the first

2   relationship is stored as a first unique record in a relationship data store table, said first

3   unique record including a relationship type field for storing a name of a first relationship

4   type.

1   15. (Original) The method as recited in Claim 14, wherein a name of the first concept is stored

2   in a participant field in a record in a relationship participant data store table, said record

3   including a relationship identification field for storing data indicating the first unique

4   record in the relationship data store table.

1   16. (Previously presented)   The method as recited in Claim 14, wherein the second

2   relationship is stored as a second unique record in the relationship data store table, said

4

3   second unique record storing a name of a corresponding second relationship type in the

4   relationship type field.

1   17. (Original) The method as recited in Claim 16, wherein a name of the first concept is stored

2   in a participant field in a first record in a relationship participant data store table, said first

3   record including a relationship identification field for storing data indicating the second

4   unique record in the relationship data store table.

1   18. (Original) The method as recited in Claim 16, wherein a name of the first concept is stored

2   in a participant field in a first record in a relationship participant data store table, said first

3   record including a relationship identification field for storing data indicating the first

4   unique record in the relationship data store table.

1   19. (Original) The method as recited in Claim 18, wherein the name of the first concept is stored

2   in the participant field in a second record in the relationship participant data store table,

3   said second record storing data in the relationship identification field for indicating the

4   second unique record in the relationship data store table.

1   20. (Original) The method as recited in Claim 15, wherein a name of a role for the first concept

2   is stored in a role field in the record in the relationship participant data store table.

1   21. (Currently Amended)   The method as recited in Claim ~~58~~ 59, wherein one or more

2   attributes of at least one of the first concept, the first relationship, and the second

3   relationship are stored in an attributes data store table.

1   22. (Currently Amended)   The method as recited in Claim ~~58~~ 59, further comprising

2   generating and storing a rule associated with at least one of a first relationship type, a

3   second relationship type, <u>and</u> a category.

1   23. (Previously presented)   The method as recited in Claim 22, wherein the rule constrains a

2   given concept which may be related to the first concept by the at least one of the first

3   relationship type, the second relationship type, and the category.

1   24. (Original) The method as recited in Claim 22, wherein the rule is stored in a relational

2   database table.

1   25. (Currently Amended)   A method of processing enterprise data generated by an enterprise,

2   the method comprising the machine-implemented steps of:

3   generating a plurality of categories that encompass the enterprise data;

4   generating a plurality of atomic concepts within the enterprise data;

5   generating a first relationship type to relate at least two concepts of the plurality of

6   atomic concepts associated with a first category of the plurality of categories;

7   generating a second relationship type, wherein the second relationship type relates at least

8   one concept of the plurality of atomic concepts associated with the first category

9   to at least another concept of the plurality of atomic concepts associated with a

10   second category of the plurality of categories;

11   storing a first concept of the plurality of atomic concepts, said first concept associated

12   with the first category;

13   generating a first relationship of the first relationship type with the first concept and a

14   second concept, wherein the second concept is associated with the first category;

15   generating a second relationship of the second relationship type with the first concept and

16   a third concept, wherein the third concept is associated with the second category;

17   ~~and~~

18   storing the first relationship and the second relationship in association with the first

19   concept<u>;</u>

20   <u>receiving a request for information related to the second concept;</u>

21   <u>sending a response to the request, wherein the response comprises information related to</u>

22   <u>the third concept and the response is generated based on the first relationship, the</u>

23   <u>second relationship, and the third concept</u>.

1   26. (Previously presented)   The method as recited in Claim 25, further comprising the step of

2   processing some data of the enterprise data based on the first concept and the second

3   relationship.

1   27. (Previously presented)   The method as recited in Claim 25, wherein the second

2   relationship type relates three or more concepts of the plurality of atomic concepts.

1   28. (Cancelled)

1   29. (Previously presented)   The method as recited in Claim 25, wherein concepts in the first

2   category are represented as nodes connected by relationships of the first relationship type

3   along one or more branches of a first type hierarchy to a first root node representing a

4   first root concept for the first category.

1   30. (Original) The method as recited in Claim 29, wherein the first root node has a "child of"

2   relationship to an enterprise data root node representing an enterprise data root concept.

1   31. (Previously presented)   The method as recited in Claim 30, wherein a second root node

2   corresponding to a second root concept for the second category of the plurality of

3   categories has a "child of" relationship to the enterprise data root node.

1   32. (Previously presented)   The method as recited in Claim 25, wherein an association among

2   the first concept, the first relationship and the second relationship is provided by a

3   relational database.

1   33. (Original) The method as recited in Claim 25, said step of storing the first concept further

2   comprising:

3   storing the first concept as a record in a first data store table; and

4   storing a name of the first concept in a concept name field in said record.

1   34. (Original) The method as recited in Claim 33, wherein every record in the first data store

2   table stores a name of a concept of the plurality of atomic concepts associated with the

3   first category.

1   35. (Original) The method as recited in Claim 25, said step of storing the first relationship and

2   the second relationship further comprising:

3   storing the first relationship as a first unique record in a relationship data store table; and

4   storing a name of the first relationship type in a relationship type field in said first unique

5   record.

1   36. (Original) The method as recited in Claim 35, said step of storing the first relationship and

2   the second relationship further comprising:

3   storing a name of the first concept in a participant field in a record in a relationship

4   participant data store table; and

5   storing in a relationship identification field in said record in the relationship participant

6   data store table, data indicating the first unique record in the relationship data

7   store table.

1   37. (Original) The method as recited in Claim 35, said step of storing the first relationship and

2   the second relationship further comprising:

3   storing the second relationship as a second unique record in the relationship data store

4   table; and

5   storing a name of the second relationship type in the relationship type field in said second

6   unique record..

1 38. (Original) The method as recited in Claim 37, said step of storing the first relationship and

2 the second relationship further comprising:

3   storing a name of the first concept in a participant field in a first record in a relationship

4   participant data store table; and

5   storing in a relationship identification field in said first record in the relationship

6   participant data store table, data indicating the second unique record in the

7   relationship data store table.

1 39. (Original) The method as recited in Claim 37, said step of storing the first relationship and

2 the second relationship further comprising:

3   storing a name of the first concept in a participant field in a first record in a relationship

4   participant data store table; and

5   storing in a relationship identification field in said first record in the relationship

6   participant data store table, data indicating the first unique record in the

7   relationship data store table.

1 40. (Original) The method as recited in Claim 39, said step of storing the first relationship and

2 the second relationship further comprising:

3   storing the name of the first concept in the participant field in a second record in the

4   relationship participant data store table; and

5   storing in the relationship identification field in said second record in the relationship

6   participant data store table, data indicating the second unique record in the

7   relationship data store table.

1 41. (Original) The method as recited in Claim 36, said step of storing the first relationship and

2 the second relationship further comprising storing a name of a role for the first concept in a role

3 field in the record in the relationship participant data store table.

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1 42. (Original) The method as recited in Claim 25, said step of storing the first relationship and

2 the second relationship further comprising storing one or more attributes of at least one of the

3 first concept and the first relationship and the second relationship in an attributes data store table.

1 43. (Original) The method as recited in Claim 25, further comprising generating and storing a

2 rule associated with at least one of the first relationship type and the second relationship type and

3 a category of the plurality of categories.

1 44. (Currently Amended)   The method as recited in Claim 43, wherein the rule constrains a

2 given [[second]] concept which may be related to the first concept by the at least one of the first

3 relationship type and the second relationship type.

1 45. (Original) The method as recited in Claim 43, said step of generating and storing the rule

2 further comprising storing the rule in a relational database table.

1 46. (Cancelled)

1 47. (Cancelled)

1 48. (Cancelled)

1 49. (Allowed) A computer-readable medium carrying one or more sequences of instructions for

2 processing enterprise data generated by an enterprise, which instructions, when executed by one

3 or more processors, cause the one or more processors to carry out the steps of:

4   generating a plurality of categories that encompass the enterprise data;

5   generating a plurality of atomic concepts within the enterprise data;

6   generating a first relationship type to relate at least two concepts of the plurality of

7   atomic concepts associated with a first category of the plurality of categories;

8   generating a second relationship type, wherein the second relationship type relates at least

9   one concept of the plurality of atomic concepts associated with the first category

10   to at least another concept of the plurality of atomic concepts associated with a

11   second category of the plurality of categories;

12   storing a first concept of the plurality of atomic concepts, said first concept associated

13   with the first category;

14   generating a first relationship of the first relationship type with the first concept and a

15   second concept, wherein the second concept is associated with the first category;

16   generating a second relationship of the second relationship type with the first concept and

17   a third concept, wherein the third concept is associated with the second category;

18   and

19   storing the first relationship and the second relationship in association with the first

20   concept.

1   50. (Cancelled)

1   51. (Cancelled)

1   52. (Cancelled)

1   53. (Allowed) A system for processing enterprise data generated by an enterprise, comprising

2   a means for generating a plurality of categories that encompass the enterprise data;

3   a means for generating a plurality of atomic concepts within the enterprise data;

4   a means for generating a first relationship type to relate at least two concepts of the

5   plurality of atomic concepts associated with a first category of the plurality of

6   categories;

7   a means for generating a second relationship type, wherein the second relationship type

8   relates at least one concept of the plurality of atomic concepts associated with the

9   first category to at least another concept of the plurality of atomic concepts

10   associated with a second category of the plurality of categories;

11   a means for storing a first concept of the plurality of atomic concepts, said first concept

12   associated with the first category;

13   a means for generating a first relationship of the first relationship type with the first

14   concept and a second concept, wherein the second concept is associated with the

15   first category;

16   a means for generating a second relationship of the second relationship type with the first

17   concept and a third concept, wherein the third concept is associated with the

18   second category; and

19   a means for storing the first relationship and the second relationship in association with

20   the first concept.

1   54. (Cancelled)

1   55. (Cancelled)

1   56. (Cancelled)

1   57. (Allowed) A system for processing enterprise data generated by an enterprise, comprising:

2   a computer readable persistent storage medium; and

3   a processor configured for

4   generating a plurality of categories that encompass the enterprise data,

5   generating a plurality of atomic concepts within the enterprise data,

6   generating a first relationship type to relate at least two concepts of the plurality

7   of atomic concepts associated with a first category of the plurality of

8   categories,

9   generating a second relationship type , wherein the second relationship type

10   relates at least one concept of the plurality of atomic concepts associated

11   with the first category to at least another concept of the plurality of atomic

12   concepts associated with a second category of the plurality of categories;

13   generating a first relationship of the first relationship type with the first concept

14   second concept, wherein the second concept is associated with the first

15   category;

16   generating a second relationship of the second relationship type with the first

17   concept and a third concept, wherein the third concept is associated with

18   the second category;

19   storing on the persistent storage medium the first concept; and

20   storing on the persistent storage medium the first relationship and the second

21   relationship in association with the first concept.

1 58. (Canceled)

1 59. (Currently amended) ~~The method of Claim 58,~~ A method of processing data, the method

2   comprising the machine-implemented steps of:

3   storing a first relationship between a first concept and a second concept, wherein:

4   the first concept and the second concept are each one of a plurality of atomic

5   concepts;

6   the first concept and the second concept are in a first category of concepts; and

7   the first relationship is part of a first concept graph corresponding to the first

8   category of concepts; and

9   storing a second relationship between the first concept and a third concept, wherein:

10   the third concept is one of the plurality of atomic concepts;

11   the first concept and the third concept are in a second category of concepts; and

12   the second relationship is part of a second concept graph corresponding to the

13   second category of concepts;

14   wherein the first concept, the second concept, and third concept are each different

15   concepts; the first category is distinct from the second category; and the

16   first concept graph is distinct from the second concept graph;

17   wherein the method further comprises:

18   receiving a request for information related to the second concept;

19   sending a response to the request, wherein the response comprises information related to

20   the third concept and the response is generated based on the first relationship, the

21   second relationship, and the third concept.

1   60. (Allowed) A computer-readable medium carrying one or more sequences of instructions for

2   processing data which instructions, when executed by one or more processors, cause the one or

3   more processors to carry out the steps of:

4   storing a first relationship between a first concept and a second concept, wherein:

5   the first concept and the second concept are each one of a plurality of atomic

6   concepts;

7   the first concept and the second concept are in a first category of concepts; and

8   the first relationship is part of a first concept graph corresponding to the first

9   category of concepts; and

10   storing a second relationship between the first concept and a third concept, wherein:

11   the third concept is one of the plurality of atomic concepts;

12   the first concept and the third concept are in a second category of concepts; and

13   the second relationship is part of a second concept graph corresponding to the

14   second category of concepts;

15   wherein the first concept, the second concept, and third concept are each different

16   concepts; the first category is distinct from the second category; and the

17   first concept graph is distinct from the second concept graph.

1   61. (Allowed) The computer-readable medium of claim 60, wherein the computer-readable

2   medium further comprises one or more sequences of instructions, which instructions, when

3   executed by one or more processors, cause the one or more processors to carry out the step of:

4   receiving a request for information related to the second concept;

5   sending a response to the request, wherein the response comprises information related to

6   the third concept and the response is generated based on the first relationship, the

7   second relationship, and the third concept.

8   62. (Allowed) A system for processing data, comprising:

9   means for storing a first relationship between a first concept and a second concept,

10   wherein:

11   the first concept and the second concept are each one of a plurality of atomic

12   concepts;

13   the first concept and the second concept are in a first category of concepts; and

14   the first relationship is part of a first concept graph corresponding to the first

15   category of concepts; and

16   means for storing a second relationship between the first concept and a third concept,

17   wherein:

18   the third concept is one of the plurality of atomic concepts;

19   the first concept and the third concept are in a second category of concepts; and

20   the second relationship is part of a second concept graph corresponding to the

21   second category of concepts;

22   wherein the first concept, the second concept, and third concept are each different

23   concepts; the first category is distinct from the second category; and the first

24   concept graph is distinct from the second concept graph.

1   63. (Allowed) The system of Claim 62, further comprising:

2   means for receiving a request for information related to the second concept;

3   means for sending a response to the request, wherein the response comprises information

4   related to the third concept and the response is generated based on the first

5   relationship, the second relationship, and the third concept.

1   64. (Allowed) A system for responding for processing data , the system comprising:

2   a database for storing concepts and relationships among concepts; and

3   a processor configured as an applications programming interface for responding to the

4   requests for information related to one or more concepts,

5   wherein,

6   storing a first relationship between a first concept and a second concept, wherein:

7   the first concept and the second concept are each one of a plurality of atomic

8   concepts;

9   the first concept and the second concept are in a first category of concepts; and

10   the first relationship is part of a first concept graph corresponding to the first

11   category of concepts; and

12   storing a second relationship between the first concept and a third concept, wherein:

13   the third concept is one of the plurality of atomic concepts;

14   the first concept and the third concept are in a second category of concepts; and

15   the second relationship is part of a second concept graph corresponding to the

16   second category of concepts;

17   wherein the first concept, the second concept, and third concept are each different

18   concepts; the first category is distinct from the second category; and the

19   first concept graph is distinct from the second concept graph.

1   65. (Allowed) The system of Claim 64, the system further comprising:

2   receiving a request for information related to the second concept;

3   sending a response to the request, wherein the response comprises information related to

4   the third concept and the response is generated based on the first relationship, the

5   second relationship, and the third concept.